

WHAT IS CLAIMED IS:

1 1. A method of detecting the presence of a target nucleic acid molecule in
2 an acellular biological sample from an animal suspected of suffering from a disease, the
3 method comprising:

4 providing the acellular biological sample;
5 contacting the sample with a polynucleotide probe that specifically hybridizes
6 to a target nucleic acid molecule that comprises sequences from the animal's germline DNA,
7 and

8 detecting a hybridization complex comprising the nucleic acid probe as
9 indicative of the presence of the target nucleic acid molecule in the acellular biological
10 sample.

1 2. The method of claim 1, wherein the target nucleic acid is an RNA
2 molecule.

1 3. The method of claim 1, wherein the target nucleic acid comprises
2 rearranged germline DNA.

1 4. The method of claim 3, wherein the rearranged germline DNA
2 comprises Alu-like sequences.

1 5. The method of claim 3, wherein the rearranged germline DNA
2 comprises SINES.

1 6. The method of claim 1, wherein the target nucleic acid molecule
2 comprises chimeric sequences.

1 7. The method of claim 1, wherein the acellular biological sample is
2 serum or plasma.

1 8. The method of claim 1, wherein the animal is suspected of having a
2 chronic illness.

1 9. The method of claim 8, wherein the chronic illness is a spongiform
2 encephalopathy.

1 10. The method of claim 9, wherein the spongiform encephalopathy is
2 bovine spongiform encephalomyelitis.

1 11. The method of claim 1, wherein the step of contacting includes a step
2 of amplifying the target nucleic acid molecule.

1 12. The method of claim 11, wherein the step of amplification is carried
2 out using a polymerase chain reaction (PCR).